

Listing of Claims:

1. (Currently Amended) A method of locating an immobile target fixedly positioned at a location via a mobile base, the method comprising:
 - transmitting a first wireless signal from the mobile base at a first time;
 - receiving the first wireless signal at the immobile target fixedly positioned at the location;
 - transmitting a second wireless signal from the immobile target in response to receiving the first wireless signal;
 - receiving the second wireless signal at the mobile base at a second time;
 - determining a time difference between the first time and the second time;
 - determining an angle of arrival of the second wireless signal; and
 - locating the immobile target based on the angle of arrival and the time difference.
2. (Currently Amended) The method of claim 1, wherein transmitting the first wireless signal comprises comprising:
 - generating an identification request; and
 - modulating the identification request with a multiple access scheme.
3. (Original) The method of claim 2, wherein the multiple access scheme comprises at least one of a code-division multiple access ("CDMA") scheme, a direct sequence CD MA ("DS-CDMA"), a synchronous CDMA ("SCDMA"), and an ultra-wide band multiple access ("UWB-MA").
4. (Currently Amended) The method of claim 1, wherein transmitting the first wireless signal comprises comprising providing a carrier frequency between about 2 GHz and about 3 GHz.
5. (Original) The method of claim 1, wherein receiving the second wireless signal comprises receiving the second wireless signal at at least one of an antenna array and a rake receiver array.
6. (Cancelled)

7. (Original) The method of claim 1, wherein transmitting the first wireless signal comprises transmitting the first wireless signal using at least one of a long term fading technique, and short term fading technique.
8. (Original) The method of claim 1, further comprising providing a communication bandwidth between about 10 MHz and about 10 GHz.
9. (Currently Amended) The method of claim 1, further ~~comprises~~ comprising beamforming the second wireless signal.
10. (Original) The method of claim 1, wherein transmitting the first wireless signal comprises omni-directionally transmitting the first wireless signal.
11. (Previously Presented) The method of claim 1, wherein determining a time difference comprises determining a velocity of the mobile base.

12. (Currently Amended) A method of locating an immobile target fixedly positioned at a location from a mobile base, wherein the mobile base has an omni-directional means for transmitting a base wireless signal, and an antenna array means for receiving a target signal and capable of determining a reception angle of the target signal, and the target at the fixed location has a transponding means capable of receiving an activating signal and responding with a target signal, the method comprising:

omni-directionally transmitting the activating signal from the omni-directional means at a first time while moving the mobile base;

activating the transponding means at the immobile target fixedly positioned at the location in response to receiving the activating signal;

transmitting a wireless target signal from the transponding means after the transponding means has been activated;

receiving the target signal at the antenna array means at a second time;

determining from the antenna array means the reception angle of the target signal;

comparing the first time with the second time to obtain a signal travel time; and

locating the immobile target based on the signal travel time and the reception angle of the target signal.

13. (Currently Amended) The method of claim 12, wherein transmitting the activating signal comprises ~~comprising~~:

generating an identification request; and

modulating the identification request with a multiple access scheme.

14. (Original) The method of claim 13, wherein the multiple access scheme comprises at least one of a code-division multiple access ("CDMA") scheme, a direct sequence CDMA ("DS-CDMA"), a synchronous CDMA ("SCDMA"), and an ultra-wide band multiple access ("UWB-MA").

15. (Currently Amended) The method of claim 14, wherein transmitting the activating signal comprises ~~comprising~~ providing a carrier frequency between about 2 GHz and about 3 GHz.

16. (Original) The method of claim 12, wherein receiving the target wireless signal comprises receiving the target wireless signal at a rake receiver array.

17. (Original) The method of claim 12, wherein transmitting the activating signal comprises transmitting the activating signal using at least one of a long term fading technique, and short term fading technique.

18. (Original) The method of claim 12, further comprising providing a communication bandwidth between about 10 MHz and 10 GHz.

19. (Currently Amended) The method of claim 12, further ~~comprises~~ comprising beamforming the target wireless signal.

20. (Cancelled)

21. (Currently Amended) A method of locating a selected one of a plurality of immobile targets fixedly positioned at respective locations from a mobile base, the method comprising:
transmitting a wireless activating signal from the mobile base at a first time;
activating with the wireless activating signal a transponder on each of the plurality of immobile targets at their respective fixed locations;
in response to activating each transponder, transmitting with each transponder at its fixed location a wireless signal having a unique mobile signature;
receiving the wireless signals at the mobile base at a plurality of arrival times;
comparing the unique mobile signature of each wireless signal with a known unique mobile signature of the selected immobile target;
identifying the wireless signal of the selected immobile target based upon a match between the known unique mobile signal and the unique mobile signal of one of the wireless signals;
determining a reception angle of the wireless signal of the selected immobile target;
comparing the first time with the arrival time of the wireless signal of the selected immobile target to obtain a time difference; and
locating the selected immobile target based on the time difference and the reception angle.

22. (Currently Amended) The method of claim 21, wherein transmitting the wireless activating signal comprises ~~comprising~~:
generating an identification request; and
modulating the identification request with a multiple access scheme.

23. (Original) The method of claim 22, wherein the multiple access scheme comprises at least one of a code-division multiple access ("CDMA") scheme, a direct sequence CDMA ("DS-CDMA"), a synchronous CDMA ("SCDMA"), and an ultra-wide band multiple access ("UWB-MA").

24. (Currently Amended) The method of claim 21, wherein transmitting the wireless activating signal comprises ~~comprising~~ providing a carrier frequency between about 2 GHz and about 3 GHz.

25. (Original) The method of claim 21, wherein receiving the mobile wireless signal comprises receiving the mobile wireless signal at a rake receiver array.

26. (Original) The method of claim 21, wherein transmitting the wireless activating signal comprises transmitting the wireless activating signal using at least one of a long term fading technique, and short term fading technique.

27. (Original) The method of claim 21, further comprising providing a communication bandwidth between about 10 MHz and 10 GHz.

28. (Currently Amended) The method of claim 21, further ~~comprises~~ comprising beamforming the mobile wireless signal.

29. (Cancelled).